strength. The table below provides the results of these measurements.

LOCATION DESCRIPTION	FLOOR OF HOUSE	MEASURED E-FIELD (V/m)	EQUIVALENT POWER DENSITY (mW/cm^2)	PERCENT OF ANSI/IEEE 1991 STANDARD (UNCONTROLLED)
Transmitter Room	Third	1.64	0.00074	0.37
Office	Second	2.60	0.00180	0.90
North Bedroom	Second	1.04	0.00028	0.14
Master Bedroom	Second	0.12	0.00004	0.02

It was observed that the television receiver in the master bedroom was experiencing interference which was most severe on Channel 13. Since filters had been installed at the RF input port of the receiver by the WMJU-FM engineer, it was hypothesized that the interference was the result of the radiated second harmonic of WMJU-FM (212.6 MHz), which falls within the passband of Channel 13 (210 to 216 MHz). The measured value of the WMJU-FM second harmonic in the master bedroom was 0.161 mV/m. The predicted Channel 13 signal level at the Lehman home, using the FCC's F(50,50) curves, is 3.9 mV/m. The desired to undesired signal ratio is, therefore, only 27.7 dB which will result in severe interference to the received picture. In order to remedy this situation, it is suggested that WMJU-FM install a bandpass filter between the WMJU-FM transmitter and the antenna. Although WMJU-FM may well be operating in full compliance with the FCC's Rules with regard to spurious and harmonic emissions, because of the close proximity of receivers in the Lehman home, these emissions are sufficient to cause significant interference to radio and television reception.

4.3 Measurement Results - Roof

Exhibit 3 shows a layout of the roof area (castle tower) and identifies the measurement locations and the WMJU-FM antenna support pole location. Exhibits 1 and 2 contain tabulations of the measured equivalent power density for the E-field and H-field measurements, respectively. Also contained in Exhibits 1 and 2 are the measured values in terms of a percentage of the MPE (ANSI/IEEE 1991 Standard) for controlled environments. It should be pointed out that the FCC has adopted the ANSI C95.1-1982 Guideline regarding human exposure to radio frequency radiation and requires all licensed broadcast stations to comply with this Guideline. The MPE in the ANSI C95.1-1982 at the WMJU-FM operating frequency is the same as in the ANSI/IEEE 1991 Standard for controlled environments.

A review of the data contained in Exhibits 1 and 2 indicates that at no location did the equivalent power density exceed the MPE for controlled environments. However, at several locations the equivalent power density exceeds the MPE for uncontrolled environments (those measured values which correspond to a percentage of 20 or higher exceed the uncontrolled environment MPE). Therefore, it is clear that the roof area should be treated as a controlled environment with access restricted.

The highest fields were measured in close proximity to the WMJU-FM support pole (measurement locations 12 and 13). Measurements at locations 12 and 13 were performed with the exterior of the probe located between 20 and 25 centimeters from the support pole.

4.4 Measurement Results - Surrounding Grounds

The grounds surrounding the Lehman home were surveyed with the Narda meter and E-field probe. Generally, the fields were unmeasurable on the Narda meter. However, in a few locations a measurable field was observed. The highest field was measured at the north edge of the property next to a stone wall directly in line with the bearing on which the antenna was mounted to the support pole. The average equivalent power density at this location was 0.0193 mW/cm^2 or 9.6 percent of the MPE for uncontrolled environments.

5.0 Summary

The radio frequency radiation measurements performed at the Lehman home showed that the equivalent power densities measured in the living areas of the home and on the surrounding grounds were well below the MPE for uncontrolled environments as specified in the ANSI/IEEE 1991 Standard. Measurements on the roof (castle tower) of the Lehman home showed levels above the uncontrolled environment MPE but below the controlled environment MPE. Access to the roof area is restricted by a locked door, such that only individuals having full knowledge of the potential for exposure can enter the roof area. Further, appropriate signs are posted warning of the potential danger and providing instructions should access be required. The roof area, therefore, meets the requirements for a controlled area and is compliant with the FCC's current Rules regarding human exposure to radio frequency radiation.

With regard to interference to television and radio reception within the Lehman home, it is recommended that WMJU-FM install a bandpass filter at the output of the WMJU-FM transmitter, to further reduce the level of spurious and harmonic radiated emissions. This step combined with the installation of notch filters (tuned to 106.3 MHz) at the RF input of the receivers should significantly reduce the interference currently being experienced.

This report and the associated exhibits were prepared by me or under my direct supervision, are believed to be true and correct.

DATED: August 17, 1995

Carl T. Jones, Jr., P.E.

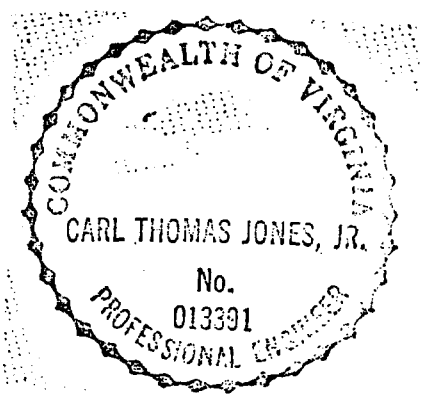


Exhibit 1

ELECTRIC (E) FIELD MEASUREMENTS
LEHMAN RESIDENCE
MT. KISCO, NEW YORK

Measurement Location	Probe Height	Measured Power Density[1] (mW/cm²)	Percent of ANSI/IEEE 1991 Standard[2]
1	Head	0.181	18.1
2	Head	0.133	13.3
3	Head	0.151	15.1
4	Head	0.0137	1.37
5	Head	0.0818	8.18
6	Head	0.0343	3.43
7	Head	0.0856	8.56
8	Head	0.305	30.5
9	Head	0.258	25.8
10	Head	0.351	35.1
10	Gonad	0.471	47.1
11	Head	0.36	36
12	Head	0.525	52.5
13[3]	---	---	---

[1] Based on 30-second timed average
[2] Controlled Environments
[3] Electrical field not measured at this location

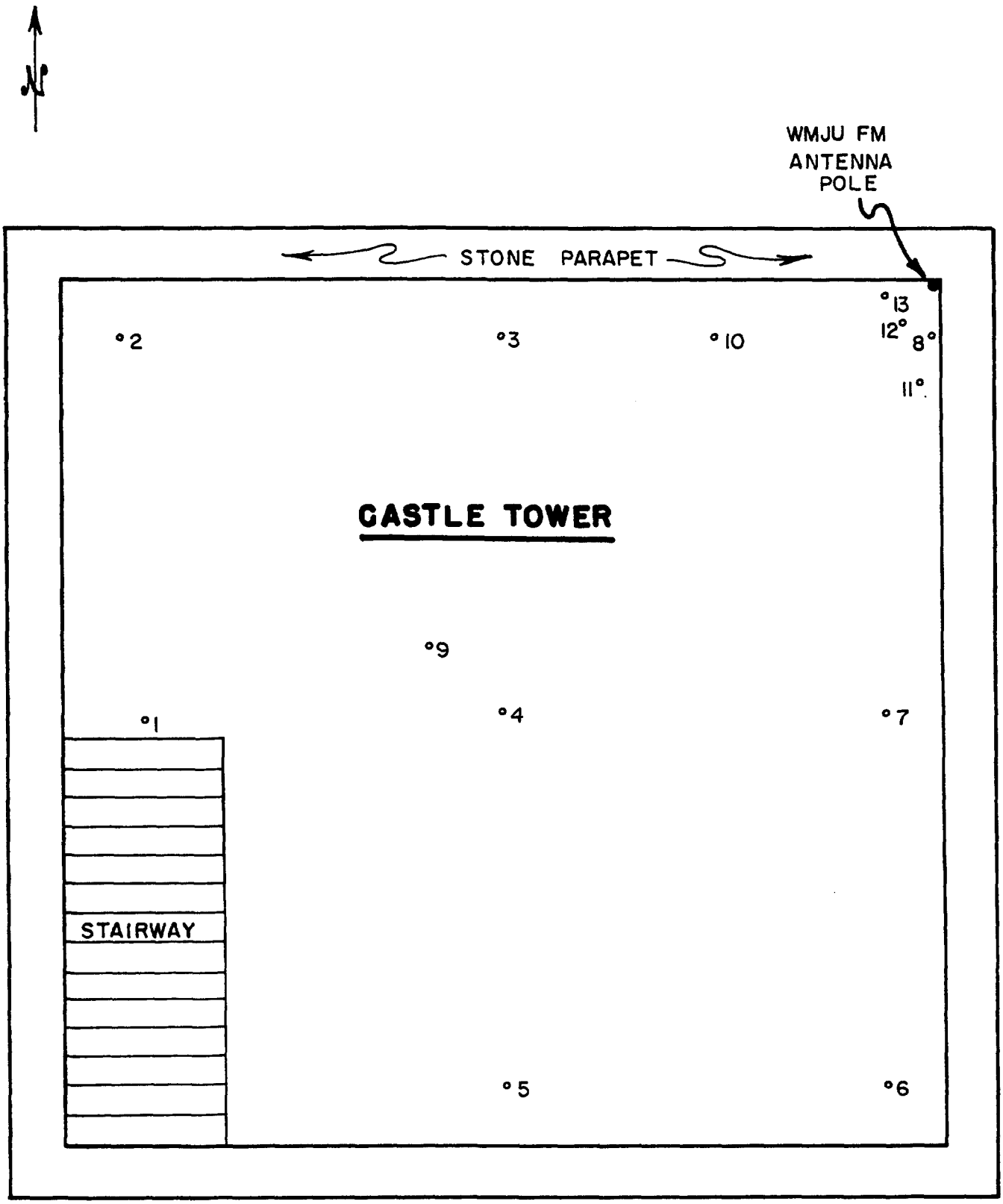
Exhibit 2

MAGNETIC (H) FIELD MEASUREMENTS
LEHMAN RESIDENCE
MT. KISCO, NEW YORK

Measurement Location	Probe Height	Measured Power Density[1] (mW/cm²)	Percent of ANSI/IEEE 1991 Standard[2]
1	Head	0.187	18.7
2	Head	0.137	13.7
3	Head	0.212	21.2
4	Head	0.162	16.2
5	Head	0.206	20.6
6	Head	0.162	16.2
7	Head	0.206	20.6
8	Head	0.381	38.1
9[3]	---	---	---
10[3]	---	---	---
11[3]	---	---	---
12	Head	0.568	56.8
13	Head	0.887	88.7

[1] Based on 30-second timed average
[2] Controlled Environments
[3] Magnetic field not measured at this location

EXHIBIT 3



SCALE 1INCH = 3FEET

CARL T. JONES
CORPORATION

MEASUREMENT POINT LOCATIONS
LEHMAN RESIDENCE
MT. KISCO, NEW YORK